



Personal Computer
VGC-LS1 Series
Safety Information

SONY®

For customers in USA and Canada

Pour les utilisateurs aux Etats-Unis et au Canada

Owner's Record

The model number and serial number are located on the back panel of your Sony VAIO® computer. Record the model and serial number in the space provided here, and keep in a secure location. Refer to the model and serial numbers when you call your Sony Service Center.

Model Number:	
Serial Number:	

Notice

© 2006 Sony Electronics Inc. Reproduction in whole or in part without written permission is prohibited. All rights reserved. This manual and the software described herein, in whole or in part, may not be reproduced, translated, or reduced to any machine-readable form without prior written approval.

SONY ELECTRONICS INC. PROVIDES NO WARRANTY WITH REGARD TO THIS MANUAL, THE SOFTWARE, OR OTHER INFORMATION CONTAINED HEREIN AND HEREBY EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH REGARD TO THIS MANUAL, THE SOFTWARE, OR SUCH OTHER INFORMATION. IN NO EVENT SHALL SONY ELECTRONICS INC. BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, WHETHER BASED ON TORT, CONTRACT, OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THIS MANUAL, THE SOFTWARE, OR OTHER INFORMATION CONTAINED HEREIN OR THE USE THEREOF.

SONY CANNOT WARRANT THAT THE FUNCTIONS DESCRIBED IN THIS GUIDE WILL BE UNINTERRUPTED OR ERROR-FREE. SONY ALSO ASSUMES NO RESPONSIBILITY, AND SHALL NOT BE LIABLE FOR ANY DAMAGES TO, OR VIRUSES THAT MAY INFECT, YOUR COMPUTER EQUIPMENT, OR OTHER PROPERTY ON ACCOUNT OF YOUR ACCESS TO, USE OF, OR BROWSING IN ANY DESCRIBED WEB SITE, OR YOUR DOWNLOADING OF ANY MATERIALS, DATA, TEXT, IMAGES, VIDEO, OR AUDIO FROM ANY DESCRIBED WEB SITE. WEB SITE INFORMATION IS OBTAINED FROM VARIOUS SOURCES AND MAY BE INACCURATE. COPIES OF COPYRIGHTED INFORMATION MAY ONLY BE MADE FOR LEGALLY PERMISSIBLE PURPOSES.

Sony Electronics Inc. reserves the right to make any modification to this manual or the information contained herein at any time without notice. The software described herein is governed by the terms of a separate user license agreement.

This product contains software owned by Sony and licensed by third parties. Use of such software is subject to the terms and conditions of license agreements enclosed with this product. Some of the software may not be transported or used outside the United States. Software specifications are subject to change without notice and may not necessarily be identical to current retail versions.

Certain product(s) included with this computer may include features such as copy protection and content management technology. USE OF THE SOFTWARE PRODUCT(S) REQUIRES AGREEMENT TO APPLICABLE END USER AGREEMENTS AND FULL COMPLIANCE WITH APPLICABLE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and privacy policies will be detailed during initial launch of the software product(s), or upon certain reinstallations of the software product(s), or reconfigurations of the computer, and may be completed by Internet or telephone (toll charges may apply).

Updates and additions to software may require an additional charge. Subscriptions to online service providers may require a fee and credit card information. Financial services may require prior arrangements with participating financial institutions.

Important information for Canadian customers: Your new VAIO computer includes certain software versions or upgrades, and Internet services or offers that are available to U.S. customers only.

Sony, VAIO, the VAIO logo, VAIO Digital Studio, VAIO Media, VAIO Media Music Server, VAIO Media Photo Server, VAIO Media Video Server, Click to DVD, CLIE, DVgate Plus, Handycam, MagicGate, Memory Stick, the Memory Stick logo, OpenMG, MICROMV, SonicStage, SonicStage Mastering Studio, SmartWi, ImageStation, ATRAC3, and i.LINK are trademarks or registered trademarks of Sony.

Intel and Pentium are trademarks or registered trademarks of Intel Corporation. Microsoft, Windows, and the Windows logo are trademarks or registered trademarks of Microsoft Corporation. PS/2 is a registered trademark of IBM Corporation.

All other trademarks are trademarks or registered trademarks of their respective owners.



As an ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

The International ENERGY STAR® Office Equipment Program is an international program that promotes energy saving through the use of computers and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, displays, printers, facsimiles and copiers. Their standards and logos are uniform among participating nations. ENERGY STAR is a U.S. registered trademark of the Environmental Protection Agency.



The Wireless LAN functionality, which is incorporated into selected models only, has passed Wi-Fi certification and complies with the interoperability specifications established by WFA (Wi-Fi Alliance).

Reverse engineering or disassembly is prohibited.

i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Please refer to the documentation that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions. All other trademarks are trademarks of their respective owners.

End User / Product Activation Requirements

Certain software product(s) included with this computer may include features such as copy protection and content management technology. Use of the software product(s) requires agreement to applicable end user agreements and full compliance with applicable product activation procedures. Product activation procedures and privacy policies will be detailed during initial launch of the software product(s), or upon certain reinstallations of the software product(s) or reconfiguration of the computer, and may be completed by Internet or telephone (toll charges may apply).

Safety Information and Caution

Your computer's installed optical drives may vary, depending on the system configuration you have purchased. See the online specifications sheet for details on your installed optical drives. For questions regarding your product or for the Sony Service Center nearest you, visit the Sony Online Support Web site at <http://esupport.sony.com/EN/VAIO/> for customers in USA or at <http://www.sony.ca/support> for customers in Canada.

For customers in the United States:

This product contains mercury. Disposal of this product may be regulated if sold in the United States. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance at <http://www.eiae.org>.

- ☐ To prevent fire or shock hazard, do not expose your computer to rain or moisture.
- ☐ To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
- ☐ The socket outlet shall be installed near the equipment and shall be easily accessible.
- ☐ Do not use or store your computer in a location subject to: Heat sources, such as radiators or air ducts; direct sunlight; excessive dust; moisture or rain; mechanical vibration or shock; strong magnets or speakers that are not magnetically shielded; ambient temperature higher than 95°F (35°C) or less than 40°F (5°C); and high humidity.
- ☐ Do not use wireless LAN on hospital premises. Doing so may cause medical devices to malfunction.
- ☐ Do not use wireless LAN on an aircraft, as doing so may cause the aircraft's equipment to malfunction.
- ☐ If using wireless LAN near a pacemaker, make sure it is at least 9 inches (22cm) away from the pacemaker.
- ☐ Sony is not responsible for any interference that you may experience or that may be caused when operating this device.
- ☐ The cable distribution system should be grounded (earthed) in accordance with ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93.



To change the backup battery, please contact your nearest Sony Service Center.



Caution—The use of optical instruments with this product will increase eye hazard. As the laser beam used in this product is harmful to the eyes, do not attempt to disassemble the drive cabinet. Refer servicing to qualified personnel only.



For this optical equipment: Caution—Class 3B visible and invisible laser radiation when open. Avoid exposure to the beam.



Caution—To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

Wireless LAN Security

Creating security settings for the Wireless LAN is extremely important. Sony assumes no responsibility for any security problems that may arise from the use of the Wireless LAN.

Avertissement

- ☐ Pour prévenir tout risque d'incendie ou d'électrocution, garder cet appareil à l'abri de la pluie et de l'humidité.
- ☐ Pour prévenir tout risque d'électrocution, ne pas ouvrir le châssis de cet appareil et ne confier son entretien qu'à une personne qualifiée.
- ☐ L'appareil doit être le plus près possible d'une prise murale pour en faciliter l'accès.
- ☐ Évitez d'utiliser ou de ranger votre ordinateur dans un endroit soumis à : des sources de chaleur telles que des radiateurs ou des bouches d'aération ; la lumière directe du soleil ; une poussière excessive ; l'humidité ou la pluie ; des vibrations ou des chocs mécaniques ; des aimants puissants ou des haut-parleurs dépourvus de blindage antimagnétique ; une température ambiante supérieure à 35°C (95°F) ou inférieure à 5°C (40°F) ; et une forte humidité.
- ☐ Ne pas utiliser le réseau local sans fil dans les hôpitaux car cela risquerait de provoquer le mauvais fonctionnement des appareils médicaux.
- ☐ Ne pas utiliser le réseau local sans fil dans un avion car cela risquerait de provoquer le mauvais fonctionnement des appareils de vol.
- ☐ Si vous utilisez le réseau local sans fil à proximité d'un stimulateur cardiaque, assurez-vous qu'il est au moins à 9 po (22 cm) du stimulateur cardiaque.
- ☐ Sony n'est pas responsable des interférences que vous risquez de rencontrer ou qui risquent d'être provoquées lors du fonctionnement de cet appareil.
- ☐ Le système de cablodistribution devrait être mis à la terre conformément à la norme ANSI/NFPA 70, en particulier à l'article 820.93 du National Electrical Code (NEC) des États-Unis.



Pour changer la pile de rechange, veuillez contacter votre centre de service Sony le plus près.



Avertissement : L'utilisation d'instruments optiques avec ce produit augmente les risques pour les yeux. Puisque le faisceau laser utilisé dans ce produit est dommageable pour les yeux, ne tentez pas de désassembler le boîtier. Adressez-vous à un agent de service qualifié.



Pour cet équipement : Attention—Classe 3B Radiation laser visible et invisible si ouvert. Évitez l'exposition au faisceau.



Attention—Afin de réduire les risques d'incendie, n'utilisez qu'un cordon de communication NO. 26 AWG ou plus gros.

Sécurité du réseau local sans fil

La création de paramètres de sécurité pour le réseau local sans fil est extrêmement importante. Sony n'est pas tenu responsable des problèmes de sécurité susceptibles de se produire lors de l'utilisation du réseau local sans fil.

Pour toute question concernant ce produit, veuillez écrire à Sony Customer Information Service Center au 12451 Gateway Blvd., Ft. Myers, FL 33913 ou retrouvez le Sony Customer Service (service consommateur de Sony) sur Internet à : <http://www.sony.ca/support>.

Regulatory Information

If you have questions about this product, you can write to the Sony Customer Information Service Center at 12451 Gateway Blvd., Ft. Myers, FL 33913 or find Sony Customer Service on the Web site at: <http://esupport.sony.com/EN/VAIO/> for customers in USA or <http://www.sony.ca/support> for customers in Canada.

Declaration of Conformity

Trade Name:	Sony
Model No.:	PCG-232L
Responsible Party:	Sony Electronics Inc.
Address:	16530 Via Esprillo, San Diego, CA 92127, USA
Telephone: (For FCC-related matters only.)	858-942-2230

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Model No.: ENX-42 (For models equipped with TV and personal video recording features)

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Model No.: VGP-WKB5US (wireless keyboard), and VGP-WMS1 (wireless mouse)

These devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ☐ Reorient or relocate the receiving antenna.
- ☐ Increase the separation between the equipment and the receiver.
- ☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ☐ Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Only peripherals (computer input/output devices, terminals, printers, etc.) that comply with FCC Class B limits may be attached to this computer product. Operation with noncompliant peripherals is likely to result in interference to radio and television reception.

All cables used to connect peripherals must be shielded and grounded. Operation with cables, connected to peripherals, that are not shielded and grounded, may result in interference to radio and television reception.

FCC Part 68

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the modem card is a label that contains, among other information, a product identifier in the format US: AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

This modem uses the USOC RJ11C telephone jack.

A telephone plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. The REN is used to determine the quantity of devices which may be connected to the telephone line.

Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US: AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g. 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operations of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact the Sony Customer Information Service Center at 1-888-4-SONY-PC (1-888-476-6972), or write to the Sony Customer Information Center, 12451 Gateway Blvd., Fort Myers, FL 33913, USA, or find Sony Customer Service on the Web site at <http://esupport.sony.com/EN/VAIO/>. If this equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment from the network until the problem is resolved.

Industry Canada Notice

NOTICE: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications.

The Ringer Equivalence Number (REN) for this terminal equipment is 0.1. The Ringer Equivalence Number (REN) is an indication of the maximum number of devices allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices does not exceed five.

This Class B digital apparatus complies with Canadian ICES-003.

Model No.: ENX-42 (For models equipped with personal video recording features)

Supplementary Television Broadcasting Receiving Apparatus - Appareils supplémentaires de réception de télévision, Canada.

Avis de L'Industrie Canada

REMARQUE : Cet équipement est conforme aux Spécifications Techniques des Équipements Terminaux d'Industrie Canada en vigueur.

L'indice d'équivalence de la sonnerie de ce matériel est de 0,1. L'indice d'équivalence de la sonnerie (IES) sert à indiquer le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC Radio Frequency Exposure (United States)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body (excluding extremities: hands, wrists, and feet).

This device and its antenna(s) must not be co-located or operating with any other antenna or transmitter (including supplied wireless devices). Users are not permitted to modify this transmitter device. Any unauthorized change made to this device could void your authority to operate this device.

IC RSS-210 (Canada)

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes : (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

IC Exposure of Humans to RF Fields

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website: www.hc-sc.gc.ca/rpb.

L'installateur du présent matériel radio doit s'assurer que l'antenne est située ou pointée de manière à ce que cette dernière n'émette pas de champs radioélectriques supérieurs aux limites spécifiées par Santé Canada pour le grand public ; consulter le Code de sécurité 6, disponible sur le site Web de Santé Canada, à l'adresse suivante : www.hc-sc.gc.ca/rpb.

Macrovision Product Notice

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only, unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Notification De Produit De Macrovision

Ce produit intègre une technologie de protection de la loi sur le droits de propriété intellectuelle couverts par la législation américaine. L'utilisation de cette technologie doit être autorisée par Macrovision. Elle est uniquement destinée à un usage privé et à d'autres fins de visualisation limitée, sauf autorisation contraire de la part de Macrovision. Tout désossage ou désassemblage est formellement interdit.

RECYCLING INFORMATION

(For customers in the United States) This product contains mercury. Disposal of this product may be regulated if sold in the United States. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance (<http://www.eiae.org>).



Do not handle damaged or leaking lithium ion batteries.

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.



Ne pas utiliser des batteries au lithium ionisé qui sont endommagées ou qui fuient.

Une batterie non conforme présente un danger d'explosion. La remplacer seulement par une batterie identique ou de type équivalent recommandé par le fabricant. Évacuer les batteries usées selon les directives du fabricant.

VAIO Homepage
<http://esupport.sony.com/EN/VAIO/> (for customers in USA)
<http://www.sony.ca/support> (for customers in Canada)
<http://esupport.sony.com/ES/VAIO> (for customers in Latin
American countries or areas)

© 2006 Sony Corporation/ Printed in China
2-696-803-11(1)



2 - 6 9 6 - 8 0 3 - 1 1